

Pharmaceutical Design and Engineering – DTU

Master project proposal

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| PROJECT TITLE: Development of an antibody display technology for screening antibody libraries against cancer targets |
| PROPOSER / PROJECT SUPERVISOR: Thomas Bouquin, PhD Department Leader – Antibody Discovery – Symphogen A/S tbo@symphogen.com +45 8870 0328 (direct) +45 4526 5050 (company) |
| PROJECT LOCATION (company name and address): Symphogen A/S Elektrovej, Building 375 DK-2800 Lyngby Denmark |
| PROJECT SYNOPSIS: <p>The department of Antibody Discovery at Symphogen continuously improves and develops new technologies aiming at screening and characterizing antibodies targeting various cancers. We propose to develop a technology displaying full length antibodies at the cell surface of mammalian cells. The goal of the technology is to screen and enrich antibody libraries for antibodies targeting various cancer targets by means of flow cytometry and paramagnetic beads. To reach this goal, the following technologies will be used: classical molecular biology (sequence analysis, PCR, cloning, etc), mammalian cell culture and transfection (classic, homologous recombination or ecotropic virus-based), protein labeling with fluorescent probes, flow cytometry analysis/sorting. If time allows, selected antibody clones will be characterized by plasmon resonance (affinity determination), ELISA and domain mapping.</p> <p>The Department of Antibody Discovery possess state-of-the-art equipment like flow cytometers, high throughput PCR machine, strong robotic facilities, among others.</p> <p>The team is currently composed of 4 scientists, 6 technicians, 2 post-docs, 1 PhD student and 1 MSc. Student.</p> <p>About Symphogen</p> <p>Symphogen is the leader in the development of antibody mixture therapeutics which seeks to improve the treatment of serious human diseases. Symphogen's growing pipeline of cancer programs offers new and unique mechanisms, which target tumors through multiple simultaneous attacks. The result is improved efficacy and the potential to reduce the development of drug resistance.</p> |